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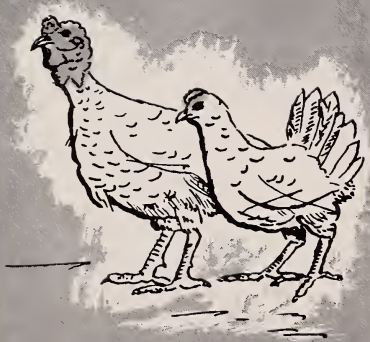
CURRENT SERIAL RECORDS

SALMONELLA INFECTIONS IN POULTRY



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UNITED STATES DEPARTMENT OF AGRICULTURE

General attitude of turkey poults infected with paratyphoid.

SALMONELLA INFECTIONS IN POULTRY

The poultry industry suffers an estimated annual loss of $290 million due to diseases and parasites. Infectious and contagious--pullorum disease, fowl typhoid, and paratyphoid are diseases of great economic significance to the poultryman.

Pullorum disease, fowl typhoid, and paratyphoid infections are poultry diseases that can be controlled and eradicated by conscientious application of sound principles. These diseases may cause the death of a majority of baby chicks or poults in a flock. They may also cause stunting, reduce egg production, and lower hatchability.

Pullorum, typhoid, and paratyphoid are caused by bacteria belonging to the Salmonella family--collectively referred to as Salmonellosis. Salmonellosis is worldwide in distribution and is likely to be encountered wherever poultry is raised.

How The Disease May Spread

In poultry the infection is spread in many ways:

- Carrier birds harbor the disease germs in their reproductive organs.
- Carrier birds, either wild or domesticated, may infect the flock if adequate precautions are not taken.
- Infected hens lay eggs that may hatch infected chicks or poults.
- Infected chicks or poults in turn infect other noninfected members of the hatch.

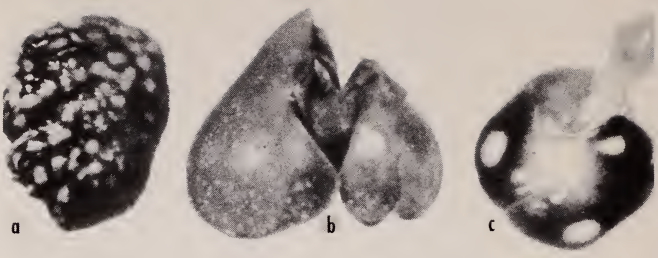
General attitude of a chick infected with pullorum disease.

- Shipping noninfected chicks in contaminated boxes or vehicles.
- Visitors may carry infection on footwear and clothing unless adequate cleaning and disinfecting measures are strictly adhered to.
- Rodents and free flying birds may spread infection from house to house or from one brood to the next.
- If improperly cleaned and disinfected, hatcheries, houses, and equipment may harbor infection from brood to brood.
- Feed sacks and feed transported from one farm to another is considered an important factor in disease transmission.
- Dead birds that are not properly burned or buried may be the primary cause for spreading salmonellosis and other diseases.

Diseases caused by the Salmonella group of organisms can be differentiated from other poultry diseases only by competent laboratory diagnostic tests. A contagious disease should be suspected when chicks or poults appear listless or weak, huddle together under hover, consume less feed, or when an unusual death loss occurs.

Decisions To Be Made

If a disease caused by one of the Salmonella group is diagnosed, the steps to be taken depend upon circumstances and type of poultry involved.



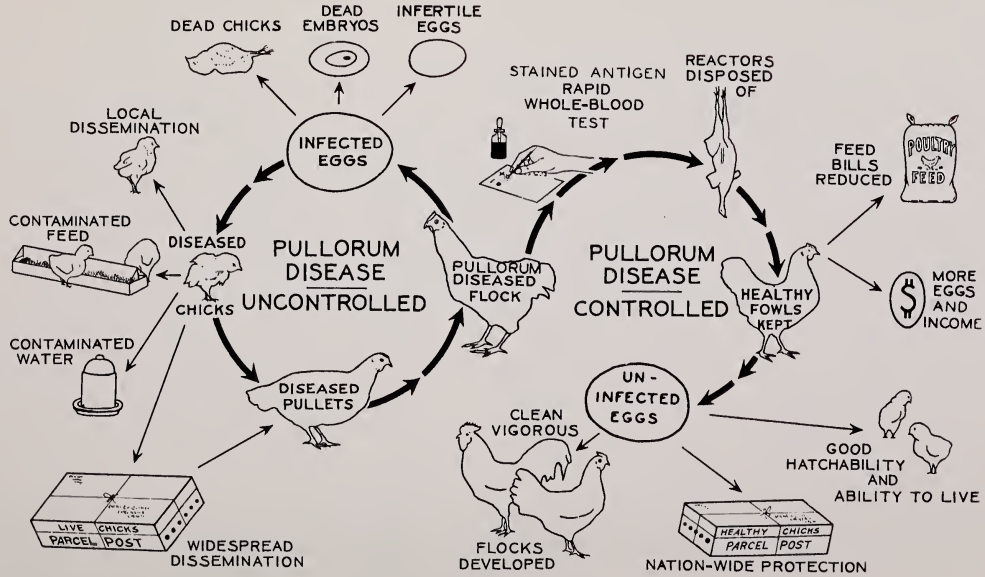
Three principal sites of lesions: (a) The lung, (b) liver, (c) gizzard.

There is no vaccine available for controlling or eliminating Salmonella infection in poultry. However, certain medications may assist in controlling the infection thus allowing some poultry to be salvaged for slaughter. Drugs will neither eliminate the disease nor prevent carriers. A qualified veterinarian or a veterinary poultry pathologist should be consulted for diagnostic assistance and treatment advice when first signs of infection appear. Most States have a cooperative testing program available to assist poultrymen with their salmonellosis problems.

When Salmonellosis gains entrance into a breeding flock, the poultry should be slaughtered and the premises thoroughly cleaned and disinfected before restocking. Eggs from an infected flock should not be used for hatching purposes.

Suggestions For Cleaning And Disinfecting

- Remove all litter, droppings, cobwebs, dust, and foreign material--do not overlook hidden places where dust and feathers collect.
- Replace earth floors with 3 inches of fresh dirt.
- Scrub all exposed surfaces with a hot solution of a good detergent in strength recommended by the manufacturer or 2 percent solution of commercial lye. Rinse and saturate the entire surface with a disinfectant such as 50 percent cresylic acid (4 ounces to 1 gallon of water), or sodium orthophenylphenate (1 heaping tablespoon to 1 gallon of hot water).



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Graphic comparison of serious effects of uncontrolled pullorum disease with benefits resulting from use of the agglutination test and the disposal of reactors.

Growth Through Agricultural Progress

Prepared in

Animal Disease Eradication Division
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